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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,953	04/15/2004	Marc N. Nestor	CE12724JME	2279

24273 7590 02/07/2006

MOTOROLA, INC  
INTELLECTUAL PROPERTY SECTION  
LAW DEPT  
8000 WEST SUNRISE BLVD  
FT LAUDERDAL, FL 33322

EXAMINER
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BUI, HUNG S

ART UNIT	PAPER NUMBER
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2841

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/826,953

Applicant(s)

NESTOR ET AL.

Examiner

Hung S. Bui

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al. [US 6,233,150].

Regarding claims 1 and 13, Lin et al. disclose a reinforced substrate apparatus (figure 1), comprising:

- a substrate (31);
- first and second shields (1) coupled to the substrate; and
- a strengthening member (2) external mounted on and coupled to only a top surface of the first and second shields (figure 1).

Regarding claim 12, Lin et al. disclose the strengthening member is coupled to at least the first shield without contacting the substrate (figure 1).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 5-6, 8-11, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. in view of Funck et al. [US 5,502,620].

Regarding claim 2, Lin et al. disclose the strengthening member to provide a rigidity of the first and second shields.

Lin et al. disclose the instant claimed invention except for the strengthening member including at least one elongated member.

Funck et al. disclose an apparatus having first and second shielding covers (34, 36, figure 1) coupled to a substrate (10), and at least one elongated strengthening member (50) being external mounted on and coupled to only top surfaces of the first and second shielding covers. Furthermore, it is well known to make the strengthening member of Lin et al. being elongated, it will provide more strengthening force to support the shielding covers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make that the strengthening member of Lin et al. including at least one elongated member, for the purpose of providing strengthening force to make a rigidity of the shielding assembly.

Regarding claims 3 and 14, Lin et al. in view of Funck et al., disclose wherein the first shield includes a first side wall and a second side wall, wherein the second side wall is opposite the first side wall and wherein the elongated member only runs along the first side wall (figure 1).

Regarding claims 8 and 15, Lin et al. in view of Funck et al. disclose wherein the at least one elongated member is located between the first and second shields.

Regarding claims 5-6, Lin et al. disclose the instant claimed invention except for the strengthening member being formed of a conductive material to ground the first and second shields.

Funck et al. disclose the strengthening member being formed of a conductive material (column 4, line 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the strengthening member of Lin et al. being formed of a conductive material, as suggested by Funck et al., for the purpose of grounding the first and second shielding covers and the substrate inside the apparatus and protecting the components mounted therein.

Regarding claim 9, Lin et al. in view of Funck et al. further disclose wherein the at least one elongated member is orientated non-parallel with another elongated member (figure 1).

Regarding claim 10, Lin et al. disclose wherein at least one of the first shield and the second shield includes a recessed surface and an un-recessed surface, a surface of the strengthening member is at substantially the same height as the un-recessed surface when the strengthening member is attached to at least one of the first shield and second shield within the recessed surface (figure 1).

Regarding claims 11 and 16, Lin et al. in view of Funck et al. disclose the substrate/board being used in the electronic device. Lin et al., as modified, disclose the instant claimed invention except for the substrate being used in the mobile electronic device.

Art Unit: 2841

Official notice is taken that it is well known in the art to use a printed circuit board/substrate in all kind of electronic devices such as computers, modems, memory cards, telephones, cell phones, PDAs, notebooks.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the substrate design of Lin et al., as modified, into a mobile electronic device, for the purpose of grounding and protecting components in the mobile electronic device.

Regarding claims 17-20, the claimed method steps would have been inherit in the product structure.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. in view of Gale et al. [US 5,796,583].

Regarding claim 4, Lin et al. disclose the instant claimed invention except for wherein the strengthening member is soldered to at least one among the first shield and the second shield.

Gale et al. disclose an apparatus having first and second shields (42, figures 4-5) and at least one strengthening member (24), wherein the strengthening member is soldered to the shields (column 4, lines 37-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to solder the strengthening member to the shields of Lin et al., as suggested by Gale et al., for the purpose of securing the shields together permanently.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-6 and 8-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lee et al. [US 6,297,966] disclose a memory module having improved heat dissipation and shielding;
- Kuo [US 6,634,905] discloses stacked electrical card connector assembly;
- Hoffman [US 5,506,373] discloses an electronic module enclosure.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2841

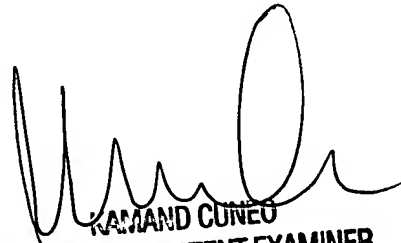
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung S. Bui whose telephone number is (571) 272-2102. The examiner can normally be reached on Monday-Friday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/28/06  
**Hung Bui**  
**Art Unit 2841**

  
**KAMAND CUNEO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**